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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,538	03/17/2004	Brian Labrec	P0952D	5669
23735	7590	12/08/2006	EXAMINER	
DIGIMARC CORPORATION 9405 SW GEMINI DRIVE BEAVERTON, OR 97008			POULOS, SANDRA K	
			ART UNIT	PAPER NUMBER

1714

DATE MAILED: 12/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/803,538

Applicant(s)

LABREC, BRIAN

Examiner

Sandra K. Poulos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 16-25 and 27-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/01/05, 6/14/06, 10/24/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Election/Restrictions

1. Claims 16-25 and 27-38 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 5/24/06.

Applicant's election with traverse of 1-15 and 26 in the reply filed on 5/24/06 is acknowledged. The traversal is on the ground(s) that (1) the Office examined related application no. 10/677,092, "in which no restriction was required despite the existence of claims directed to compositions, articles, identification documents, and methods" and therefore the pending claims should not be restricted in this application either, (2) "there is not a serious search burden on the Examiner", (3) "the Office has not established two-way distinctiveness among groups I, II, and IV, and (4) "article and an identification document are clearly capable of being used together" and "they are all useable together in identification documents".

Arguments (1)-(2) are not found persuasive because (a) 10/677,092 is not in the chain of applications from which the instant is descended, (b) it is only sound and proper for the examiner to re-evaluate her position in a new case regardless of the actions by other examiners in other cases related or not and (c) the inventions have acquired a separate status in the art as shown by their different classification and because of their recognized divergent subject matter, and the search required for each group of claims requires a different field of search therefore causing a serious burden on the Examiner (see page 2 of the Restriction Requirement mailed 3/34/06).

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Regarding argument (3), a showing of two-way distinctness is not required when applying a restriction for process of making versus product made (MPEP 806.05(f)) as done by the Examiner in the restriction requirement distinguishing III from I, II and IV. The Examiner has distinguished between (a) I and II, IV (b) between III and I, II, IV and, finally, (c) between II and IV. It is clear that from the possible the permutations that all groups, including I, II and IV have been mutually distinguished.

Regarding argument (4), the article in Group II, claim 16 is so wide in scope that it is potentially open to a non-layered product that is unrelated to the (layered) Identification document of Group IV, claim 33. Moreover, even though the article of claim 18 (Group II) is a layered product, it is not necessarily envisioned that it would be an identification document as in Group IV.

The requirement is still deemed proper and is therefore made FINAL.

Information Disclosure Statement

2. The NPL reference that is the Canadian Office action for the analogous Canadian application has not been considered because it is not a published document.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 54h and 54k. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the

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description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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4. Claims 1 and 8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 and 9-10 of copending Application No. 10/677,092. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following explanation.

The aforementioned claims of copending Application No. 10/677,092 disclose a composition having laser engraving properties comprising a host material, a laser enhancing additive containing a first quantity of at least one of CuI_3 , CuI , KI , NaI , and AlI ; and a second quantity of ZnS , BaS , alkyl sulfonate, and thioester. Claim 9 discloses a secondary material that includes polyurethane.

Although the 10/677,092 claims do not expressly disclose the composition "capable of being mixed into a predetermined polymer material", they do include polyurethane, which is one of the polymer materials in the current claims, and thus it is examiner's position that the composition disclosed in 10/677,092 is capable of being mixed with polymer.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 1-15 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 26 recite "the host material comprising a material that is substantially the same type of material as the predetermined polymer material" wherein it is unclear what is meant by "substantially the same type of material". For example, if one polymer was nylon, it is unclear whether the second polymer, being "substantially the same type of material", would be limited to thermoplastics in general, or only restricted to nylons. Additionally, it is unclear whether the host material is the same material as the polymer material.

The remaining claims are rejected under 35 U.S.C. 112, second paragraph, as being dependent upon a rejected base claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4, 7, 8, 11-12, 14-15 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan (US 6,503,310) in view of WO 91/16722.

Sullivan discloses laser markable coatings containing a marking pigments and a fixing material (abstract). The marking pigment includes zinc sulfide (abstract; claim 2).

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The laser marking material is typically applied to the substrate; the coatings are preferably cured after they are applied to the substrate (col 3, lines 33-45) and thus is considered a type of laminate. The coating is then marked with conventional laser, preferably to convert the light coating to a dark marking in the region of laser irradiation (col 3, lines 43-45). For many types of marking, the selected portion of the marking material may comprise from about 1 to about 99 percent of the total surface area of the layer of marking, typically from about 5 to about 95 percent (col 4, lines 35-52). The polymers (host material) used in the coatings are thermosets and thermoplastics such as acrylic, polyester, epoxy, and urethane resins (col 2 line 64 to col 3 line 4). Other additives known in the art may be included (col 3, lines 4-8).

The current claims recite the composition is capable of being mixed with a predetermined polymer material, and not that it actually is mixed with the polymer material. It is examiner's position that the Sullivan composition is capable of being mixed with another polymer since various polymers are named as binders and the composition as a whole is used as a coating material.

Sullivan does not disclose copper potassium iodide or copper iodide.

WO '722 discloses electroluminescent phosphors containing a mixture of predominantly zinc sulfide and minor amount of copper compounds including copper iodide (abstract; page 10). The amount of the copper compound is less than 4%, preferably less than 1% (page 10).

It would have been obvious to one of ordinary skill in the art to incorporate the copper compounds, particularly copper iodide, into the Sullivan composition to obtain a

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laser marking composition with improved markability due to the brightness and color imparting properties of the copper compounds (abstract, page 1).

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied in the immediately preceding paragraph and further in view of Wessels (US 2002/0077380).

Sullivan and WO '722 do not disclose masterbatching.

Wessels discloses a polymer composition containing a polymer and a laser marking additive (abstract). Wessels describes a preparation method wherein the additive and the polymer are masterbatched (para 21). Articles made from the laser markable plastic are made by known techniques in the art such as injection molding, blow molding, casting, extrusion, etc (para 22).

It would have been obvious to one of ordinary skill in the art to masterbatch the additive and polymer host material in the Sullivan composition, because Wessels shows success in using the procedure for laser markable plastic compositions (Examples I-VII, paragraphs 24-31).

7. Claims 1-15 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daga (US 6,825,265) in view of WO 91/16722.

Daga discloses pigments and compositions for use in laser marking. Suitable pigments include TiO₂, ZnO, and ZnS (col 2, lines 63-64) and are included in an amount of 01-70 wt%, preferably 0.1-10 wt% (col 4, lines 51-55). The pigments may be used to

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enhance laser marking in compositions comprising any suitable polymer, including polyolefins and fluoropolymers (col 4, lines 15-27). The polymers may be melt-processed using any suitable equipment, such as extrusion or is coated on a substrate and heat-treated (col 4, lines 28-36). The crosslinking of the coating results in a laminate. The composition may be extruded over a wire, cable, or bundle of wire to form an insulating layer (col 5, lines 20-27). One or more layers of different or the same thickness and/or composition may be present between the wire or cable and the layer of compositions (col 5, lines 30-38). The examples use the technique of masterbatching the components (col 6, lines 9-25)

The current claims recite the composition is capable of being mixed with a predetermined polymer material, and not that it actually is mixed with the polymer material. It is examiner's position that the Daga composition is capable of being mixed with another polymer since various polymers are named as binders and the composition as a whole is used as a coating material.

Daga does not disclose copper potassium iodide or copper iodide.

WO '722 discloses electroluminescent phosphors containing a mixture of predominantly zinc sulfide and minor amount of copper compounds including copper iodide (abstract; page 10). The amount of the copper compound is less than 4%, preferably less than 1% (page 10).

It would have been obvious to one of ordinary skill in the art to incorporate the copper compounds, particularly copper iodide, into the Daga composition to obtain a

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laser marking composition with improved markability due to the brightness and color imparting properties of the copper compounds (abstract, page 1).

Although Daga does not refer to gray scale images, it is examiner's position that since Daga discloses 0.1 wt% additive on the lower range, which is within the currently claimed range that is disclosed as being sufficient to permit gray scale images, the composition of Daga would intrinsically be capable of having a gray scale image engraved into the polymer material.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra K. Poulos whose telephone number is (571) 272-6428. The examiner can normally be reached on M-F 8:00-4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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